

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
25 August 2005 (25.08.2005)

PCT

(10) International Publication Number
WO 2005/078535 A3

(51) International Patent Classification⁷: **C04B 40/00**

(21) International Application Number:

PCT/EP2005/050597

(22) International Filing Date: 10 February 2005 (10.02.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

MI2004A000227 12 February 2004 (12.02.2004) IT

(71) Applicant (for all designated States except US): **ITAL-CEMENTI S.P.A.** [IT/IT]; Via Camozzi, 124, I-24121 Bergamo (IT).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **COSTA, Umberto** [IT/IT]; Via Marzanica, 15/A, I-24124 Bergamo (IT). **CUCITORE, Roberto** [IT/IT]; Via Lombardia, 6, I-24124 Bergamo (IT).

(74) Agents: **GERLI, Paolo** et al.; Notarbartolo & Gervasi S.p.A., Corso di Porta Vittoria, 9, I-20122 Milan (IT).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,

CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declaration under Rule 4.17:

— of inventorship (Rule 4.17(iv)) for US only

Published:

— with international search report
— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) Date of publication of the international search report:

8 December 2005

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: FAST-SETTING POURABLE MORTARS WITH HIGH FLUIDITY

(57) Abstract: Described herein are new cementitious mortars with a high degree of fluidity and short consolidation times. The mortars contain water, a fast-setting cement, fluidifiers and/or superfluidifiers, setting regulators and aggregates having a specific granulometric distribution. The aggregates are made up of two fractions with different grain size such that the ratio between the characteristic grain diameters of the two fractions is comprised between 2.2 and 3.2. The new mortars thus obtained have values of fluidity 2-3 times higher than those of mortars produced with traditional aggregates: the increase in fluidity is obtained without increasing the water/cement ratio and without increasing the amount of fluidifiers present. The mortars produced according to the invention may be used to advantage in all applications in which it is required to associate a high degree of fluidity and a rapid consolidation.

BEST AVAILABLE COPY

WO 2005/078535 A3